

**SECTION 1 IDENTIFICATION**

**Product Trade Name:** Krystal Green  
**Recommended Use:** Glass and surface cleaner  
**Restrictions on Use:** For Industrial and Institutional use only  
**Manufacturer:** Maxim Chemical International Inc.  
 1607 Derwent Way, Delta, B.C. Canada V3M 6K8  
 (800) 663-9925  
**Emergency Phone Number/ 24-Hour Number:** Canada: Canutec 613-996-6666  
 U.S.A.: Chemtrec 800-424-9300

**SECTION 2 HAZARD IDENTIFICATION**

**Physical Hazards:** None  
**Health Hazards:** SKIN CORROSION/IRRITATION - Category 2  
 EYE DAMAGE/IRRITATION - Category 2A

**Label Elements:**



**Signal word:** Warning  
**Hazard Statement:** H315 Causes skin irritation.  
 H319 Causes serious eye irritation.

**Precautionary Statements:**

**Prevention:** P264 Wash hands or affected area thoroughly after handling.  
 P280 Wear protective gloves/ eye protection/ face protection.  
**Responses:** P302 + P352 IF ON SKIN: Wash with plenty of water.  
 P321 Specific treatment (see supplemental first aid information on this label).  
 P332 + P313 If skin irritation occurs: Get medical advice/attention.  
 P362 + P364 Take off contaminated clothing and wash it before reuse.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 If eye irritation persists: Get medical advice/attention.  
**Storage:** Not regulated. Store in a cool, dry place. Keep container tightly closed. Keep out of reach of children.  
**Disposal:** Not regulated. Dispose of contents/ container to an approved waste disposal plant.

**SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS**

Ingredient	Approx. Wt.%	CAS Number
Ethylene Glycol Monobutyl Ether	7-13	111-76-2
Monoethanolamine	1-5	141-43-5

**SECTION 4 FIRST-AID MEASURES**

**Inhalation:** Immediately remove the affected victim to fresh air. If symptoms persist, obtain medical attention.  
**Skin Contact:** Immediately flush exposed area with soap and water for at least 10 minutes. If irritation persists, or if contact has been prolonged, obtain medical attention. Remove contaminated clothing and launder before reuse.  
**Eye Contact:** Immediately flush with warm running water for at least 15 minutes, holding eyelids open during flushing. Remove contact lenses, if present and easy to do. If irritation persists, repeat flushing and obtain medical attention immediately.  
**Ingestion:** Do not induce vomiting. If the victim is fully conscious, give plenty of clean water to drink to dilute product. Never give anything by mouth if victim is unconscious, is rapidly losing consciousness, or is convulsing. Call a Physician.

If irritation occurs or persists, get medical attention.

## SECTION 5 FIRE-FIGHTING MEASURES

<b>Extinguishing Media:</b>	Water fog, alcohol foam, or dry chemical.
<b>Flammability:</b>	Not flammable.
<b>Flash Point:</b>	Not flammable.
<b>Special Firefighting Procedures:</b>	Wear NIOSH/MSHA approved, self-contained breathing apparatus for firefighting situation. Use water spray to cool all nearby fire exposed surfaces.
<b>Unusual Fire / Explosion Hazards:</b>	Explosive products are formed by the reaction of ammonia with silver chloride, silver oxide, bromine, iodine, gold, mercury, tellurium halides. This material may produce a floating fire hazard in extreme fire conditions. This product can produce flammable vapors which may travel to a source of ignition and flash back. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.
<b>Hazardous Decomposition Products:</b>	Nitrogen oxides, ammonia. Carbon monoxide, carbon dioxide. The smoke may contain unidentified toxic and/or irritating compounds.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Environmental Protection Precautions:** Do not release to the environment or water source.

**Steps To Be Taken In Case Material Is Released Or Spilled:** Wear protective equipment. Soak up spills with absorbents, then dispose of in an appropriate waste container. Keep material away from sewers. Reuse if possible. Otherwise dispose recovered material in accordance with all local, Provincial or Federal regulations.

## SECTION 7 HANDLING AND STORAGE

**Precautions To Be Taken In Handling And Storage:** Use good industrial hygiene. Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing sprays or mists. Store in a cool, dry place away from incompatibles. Keep container closed when not in use. Do not mix with any other chemicals. Store at temperatures below 30°C (86°F) and keep from freezing. Do not store in aluminum, copper, copper alloys and galvanized containers.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Limits:**  
 OSHA (PEL): N/A  
 ACGIH TLV: N/A  
 Other exposure limit: N/A

**Appropriate Engineering Controls:** Good general ventilation.

**Individual Protection Measures / Personal Protective Equipment:**  
**Gloves:** Non-permeable gloves (rubber, nitrile) recommended.  
**Masks/Goggles:** Use chemical goggles or safety glasses when eye contact may occur.  
**Respirator:** Good general ventilation or local exhaust ventilation for spraying and misting in confined areas.  
**Apron:** Not required for normal use of product.  
**Boots:** Not required for normal use of product.  
**Other Protective Equipment:** Eye wash, safety shower and full protective clothing recommended in the immediate work area.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Dark green liquid.
<b>Odor:</b>	Floral/ ammonia scent.
<b>Odor threshold:</b>	N/A
<b>pH:</b>	10.0-11.0
<b>Melting point/Freezing point:</b>	N/A
<b>Initial boiling point and boiling range:</b>	N/A
<b>Flash Point:</b>	None to 93 °C
<b>Evaporation Rate (Water=1):</b>	N/A

Flammability:	Not flammable
Upper/Lower flammability or explosive limits:	None.
Vapor pressure:	N/A
Vapor density:	N/A
Relative density/Specific gravity (Water = 1):	0.96 @ 20 °C
Solubility(ies):	Soluble in water
Partition coefficient: n-octanol/water:	N/A
Auto-ignition temperature:	Not flammable
Decomposition temperature:	N/A
Viscosity:	N/A

**SECTION 10 STABILITY AND REACTIVITY**

Chemical stability:	Stable under normal storage conditions.
Possibility of hazardous reactions:	Adding sodium hydroxide to this material and or heating will volatilize ammonia gas. Contact with iodine, bromine, calcium, hypochlorite mixtures, contact with halogens may cause violent splattering. Explosive products are formed by the reaction of ammonia with silver chloride, silver oxide, bromine, iodine, gold, mercury, tellurium halides.
Conditions to avoid:	Temperatures above 30°C (86°F) and below 5°C (41°F). Avoid contact with copper, zinc, tin, aluminum and alloys. Avoid nitric acid, fluorine, chlorine. Avoid strong oxidizers, strong acids, halogens, mineral acids.
Incompatibility:	Ammonia is incompatible or has potentially hazardous reactions with silver, acetaldehyde, acrolein, boron, halogens, perchlorate, chloric acid, chlorine monoxide, chlorides, nitrogen tetroxide, tin, and sulphur.
Hazardous Decomposition Products:	Oxides of carbon.

**SECTION 11 TOXICOLOGICAL INFORMATION**

Likely routes of exposure:	Ingestion, skin and eye contact.
Symptoms:	Irritation to eyes and skin.
Acute Toxicity Estimates:	(oral) 2748 mg/kg, (dermal) N/A
Carcinogenicity:	Not listed by NTP, IARC, OSHA, ACGIH.
Ethylene Glycol Monobutyl Ether:	
LD <sub>50</sub> (oral rabbit):	320 mg/kg – Acute Toxicity Oral Category 4
LD <sub>50</sub> (dermal rabbit):	400 mg/kg – Acute Toxicity Dermal Category 2
LC <sub>50</sub> (inhalation rat):	450 ppm, 4hr – Acute Toxicity Inhalation Category N/A
Monoethanolamine:	
LD <sub>50</sub> (oral rat):	1720 mg/kg – Acute Toxicity Oral Category 4
LD <sub>50</sub> (dermal rabbit):	1000 mg/kg – Acute Toxicity Dermal Category 3

**SECTION 12 ECOLOGICAL INFORMATION**

Not required.

**SECTION 13 DISPOSAL CONSIDERATIONS**

**Recommended Waste Disposal Methods:** Reuse if possible. Otherwise dispose recovered material in accordance with all local, Provincial or Federal regulations.

**SECTION 14 TRANSPORT INFORMATION**

This product is classified as "Non-flammable, Non-hazardous, Not Restricted" for Transport purposes.

Canadian TDG	
UN Number:	Not regulated.
UN Proper Shipping Name:	Not regulated.
Transport Hazard Class(es):	Not regulated.
Packing Group:	Not regulated.

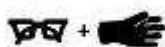
**SECTION 15 REGULATORY INFORMATION****HAZARD RATING INFORMATION**

4=Extreme  
3=High  
2=Moderate  
1=Slight  
0=Insignificant

HMIS	
2	Health
1	Flammability
0	Reactivity
B	Personal

A=Gloves, B=Goggles & Gloves  
C=Goggles, Gloves and Apron

HMIS Protection  
Group B



All pertinent hazard information has been provided in this SDS, per the requirements of the U.S. Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalent Standards, and the Canadian Workplace Hazardous Materials Identification System Standards (CPR 4).

**SECTION 16 OTHER INFORMATION****Acronym List:**

ACGIH	American Conference of Governmental Industrial Hygienists
CFR	Code of Federal Regulations
HMIS	Hazardous Materials Identification System
IARC	International Agency for Research on Cancer
MSHA	Mine Safety and Health Administration
N/A	Not Available
NIOSH	The National Institute for Occupational Safety and Health
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
TDG	Transportation of Dangerous Goods
TLV	Threshold Limit Value
UN	United Nations
WHMIS	Workplace Hazardous Materials Information System

It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. **Maxim Chemical International Inc.** will accept no liability for damages or loss incurred from the improper handling and use of this product.

The information provided in the Safety Data Sheet has been obtained from current sources and is believed to be reliable.

PREPARED BY: Technical Service/Regulatory Division

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